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| Station 1/5 Chem 12 Group members:  Chapter 19.1-19.3 |
| 1. Calculate the [OH-] in limes which have a [OH-] of 1.3 x 10 -2 mol/L. |
| 1. Calcualte the [H +] in lemons that have a [OH-] of 2.0 x 10 -12 mol/L. |
| 1. A solution of a strong base, NaOH is prepared by dissolving 2.50 g to make 2.00 L of solution. Calculate the [OH-], [H+] concentrations. |
| 1. A 0.80 mol/L solution of an unknown weak acid HX(aq) has a pH of 3.75. Once you find [H+], use an ICE table to find the acid dissociation( aka acid ionization) constant. |
| Station 2/6 Chem 12  Chapter 19.1-19.3 |
| 1. A vinegar solution has a hydrogen ion concentration of 1.5 x 10 -3 mol/L. calculate the pH. |
| 1. An ammonia solution has a pOH of 2.92. what is the concentration of hydroxide ions in the solution? |
| 1. Calculate the pOH and PH of a solution made by dissolving 7.50 grams of the strong base strontium hydroxide to make a 500mL solution. |
| 1. Complete the following table  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  | Substance | [H+] | pH | [OH-] | pOH | Acidic/Basic/neutral | | A | Milk |  |  | 3.2 x 10 -8 |  |  | | B | Pure water |  | 7.0 |  |  |  | | C | blood | 4.0 x 10 -8 |  |  |  |  | |  |  |  |  |  |  |  | |
| Station 3/7 Chem 12  Chapter 19.1-19.3 |
| 1. Compare the words strong/weak and concentrated/dilute as they pertain to acids and bases. |
| 1. Use Arrhenius to write the reaction of the following with water: 2. Nitric acid B. ethanoic acid C. ammonia D. magnesium hydroxide |
| 1. Draw a flow chart that shows the conversion of [OH-] to and from [H+], pH and POH. Make your chart in the shape of a box. |
| 1. Identify the acids and bases and then label the conjugate acid/base pairs.   HCOOH(aq) + CN -  HCOO - (aq) + HCN(aq) |
| 1. Use the five step process to predict the predominant acid/base reaction in a mixture of 2. Hydrofluoric acid and potassium sulfate 3. Hydrochloric acid added to baking soda(sodium hydrogen carbonate) |
| 1. Samples of an unknown solution turned both methyl orange and bromothymol blue ot yellow, and turned bromocresol green to blue. 2. Give the range of pH for the unknown solution. 3. Calculate the approximate Hydronium( or H+ )concentration. |